Kirkland Lake District Fisheries Management Plan 1986 - 2000

DRAFT

Ontario
Ministry of Natural Resources
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87-00214/

1SBN 0-7729-1645-4

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NORTHERN ADMINISTRATIVE REGION AND ADMINISTRATIVE DISTRICTS

LEGEND

MAP 1

- NORTHERN ADMINISTRATIVE REGION
- ADMINISTRATIVE DISTRICT
- DISTRICT OFFICE
- DISTRICT PLANNING AREA

Preface

This document consists of the following:

- fisheries resource information
- fisheries objectives and targets
- preferred management strategies and tactics
- five year implementation schedule
- review of public consultation

Collectively, this information forms the Kirkland Lake District Fisheries Management Plan. The purpose of this plan is to describe in a formal way the intended long term direction to the year 2000 of fisheries management efforts in the Kirkland Lake District in the context of the targets established in the District Land Use Guidelines. Further, it provides a means against which the fisheries management program in Kirkland Lake can be measured by the public and fisheries managers.

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1.0 Introduction

1.1 PURPOSE

The purpose of this management plan is to organize M.N.R.'s fisheries management efforts in order to create a more efficient and effective fisheries management program in the Kirkland Lake District.

The plan will accomplish the following:

- provide opportunities for public involvement
- provide a public statement of our fisheries management intentions
- provide guidance/direction to Ministry of Natural Resources staff
- provide for a pro active/dynamic approach to fisheries management in the Kirkland Lake District

As a result of implementation of the strategies described herein it is anticipated that:

- more fish will be produced
- more angling opportunities will be created
- more dollars will be generated into the local economy
- a higher public satisfaction level will develop

1.2 MANAGEMENT DIRECTION

This management plan identifies both long term fisheries management direction (to the year 2000) and specific short term (five year) fisheries management actions to be carried out within the Kirkland Lake District.

All district fisheries management activities will contribute toward attainment of the objectives and targets identified in the management plan and be consistent with the identified strategies and activities. Annual work plans will reflect the tactics and priorities established in the management plan and the five year implementation schedule.

Responsibility for the preparation of the fisheries management plan has been assigned to the District Manager while responsibility for its approval rests with the Regional Director. The plan will be reviewed at five year intervals or whenever major revisions are necessary. Significant modifications will follow the same approval process as the original document.

Approved major changes will be reflected in the District Land Use Guidelines and likewise, the plan may be revised to reflect major revisions to the District Land Use Guidelines.

Fisheries management projects to be undertaken in accordance with the plan are subject to the requirements of the Environmental Assessment Act. As a result of complying with appropriate class environmental assessment requirements, there may be changes to specific tactics identified in the plan.

This management plan recognizes commercial tourism as an important use of the fisheries resource in the Kirkland Lake District. However, allocations of fish in this District are not viewed as an issue by either the commercial tourism industry or the Ministry of Natural Resources. As a result, commercial tourism is dealt within the overall context of the general sport fishery component.

2.0 Planning Process

2.1 PROVINCIAL AND DISTRICT FRAMEWORK

This fisheries management plan has been prepared within the framework of Ministry of Natural Resources policy and accepted resource management principles.

The Strategic Land Use Plan (SLUP) for Northeastern Ontario indicates at a broad level how the Ministry of Natural Resources intends to manage various land use programs to provide optimum use of the resources with a minimum of conflict.

The District Land Use Guidelines (DLUG) follow that policy direction and in turn provide targets and other important management direction for individual resource management plans, including this fisheries management plan.

Technical direction is provided by the Strategic Plan for Ontario Fisheries (SPOF). All preferred strategies and tactics contained in this plan satisfy the basic management principles stated in SPOF.

The interdisciplinary district planning team which oversaw development of the Fisheries Management Plan provided additional interpretation on policy and management principles and ensured that good science, public wishes, need, and legislation shaped what was done.

2.2 DISTRICT FISHERIES MANAGEMENT PLAN PREPARATION

2.2.1 Background Reports

A detailed background report which includes analyses of known fisheries information in Kirkland Lake District forms the basis for the management direction described in this plan. This document is available for review at the Kirkland Lake District Office and includes information regarding:

- The Purpose
- Resource Use and Projections
- Target Testing
- Present Management Practices
- Identification and Evaluation of Optional Management Strategies

A condensation of the background document entitled "Background Information and Optional Management Strategies - A Summary" was published and reviewed by the public in January, 1986.

2.2.2 Public Consultation

The Ministry of Natural Resources has been committed to involving the public in the development of the comprehensive fisheries management plan for the Kirkland Lake District. The initial phase of public consultation included the publication of the "Background Information and Optional Management Strategies Summary" and the subsequent Open House in January, 1986. Our interpretation of public comment is detailed in Appendix I and summarized as follows:

- there is considerable interest in fisheries management in the district.
- habitat degradation and overfishing are clearly seen as the major problems or issues with user perceptions and introductions of unwanted species as minor problems.
- stocking is a high priority and stocking needs to focus on self reproducing populations with a decreased emphasis on "put, grow and take".
- expansion of walleye waters is a high priority, whereas expansion of aurora trout and splake waters is not.
- increased enforcement and stocking efforts, particularly with regards to walleye are perceived to be the keys to increasing fish populations in the Kirkland Lake District.

3.0 Objectives and Targets

To direct management effort which would enable the Ministry of Natural Resources to meet the demands placed upon the fishery, a series of objectives and targets were developed for the District Land Use Guidelines (DLUG). The objectives and targets, which reflect provincial concerns have been refined in this document consistent with the capability of local resources and known demands of the user. Management strategies have been developed for each objective and target, identifying specific management tactics or actions necessary for their achievement.

In DLUG, the management objective is divided into sports fish, commercial fish and lake trout objectives.

Analysis of the fisheries resource data in the Kirkland Lake District illustrated that the DLUG targets could be refined to better reflect the actual productivity of the resource (Table 1). As a result, the sport fish objective is subdivided into three targets to provide for better management of walleye, salmonids and other species. The lake trout objective and target, which appeared separately in DLUG is incorporated into the sport fish objective and target in this plan as lake trout is an essential part of the sport fishery. The commercial fish objective and target in this fisheries plan only addresses the bait fish industry, although DLUG suggests that a commercial food fishery on selected lakes may be viable. High transportation costs and conflicts with the sport fishery will make implementation of a commercial food fishery difficult. The DLUG objective and target for the commercial food fishery has therefore been dropped in the fisheries management planning process.

Table 1. Fisheries Management Objectives and Targets

BROAD FISHERIES MANAGEMENT OBJECTIVE

To protect, enhance, maintain and rehabilitate fish communities and their environment in order to provide an optimum contribution of fish, fishing opportunities and their associated benefits to society.

SPORT FISH OBJECTIVE

To maintain opportunities for a diversified angling experience and meet the future angling demand for all species within the limits of sustained yield management.

SPORT FISH TARGET

To satisfy angling demand through the provision of 111,800 kg. of sport fish per year.

Walleye - to provide for a harvest of 35,000 kg by the year 2000.

Salmonid - to provide for a harvest of 5400 kg by the year 2000.

Other Species - to provide for a harvest of 71,400 kg by the year 2000.

COMMERCIAL FISH OBJECTIVE

To manage bait fish to ensure socioeconomic benefits and the maintenance of stable fish communities within the limits of sustained yield management.

COMMERCIAL FISH TARGET

To meet the anticipated demand of 56,000 dozen bait fish by the year 2000.

4.0 The Resource

4.1 PHYSIOGRAPHY

The Kirkland Lake District Fisheries Management Plan covers the productive waters (approximately 650 sq. km) contained in the 13,313 sq km that make up the Kirkland Lake Administrative District of the Ministry of Natural Resources. (Fig. 1)

The height of land dividing the Atlantic and Arctic watersheds bisects the District west to east in the north central sector (Fig. 2). In the northern sector all water eventually drains into James Bay via the Black, Mattagami and Frederickhouse Rivers. The south and central portions of the District are drained by the Blanche and Montreal River systems which flow south into the St. Lawrence River via the Ottawa River.

The Blanche and Montreal are the two major rivers in the District. The Blanche River drops an average of 1.0 m/km from its source at Sesekinika Lake near the height of land, to Lake Timiskaming, a distance of 141 km. Similarly, the Montreal originates at Smoothwater Lake in Temagami District and flows north, east and south through Kirkland Lake District before emptying into Lake Timiskaming. The average drop in elevation of the Montreal River over its 240 km length is 0.8 m/km.

There are two main agricultural areas (Clay Belts) in the District supporting mainly shallow, warmwater lakes and rivers. The largest agricultural area consists of 21 townships in the southeast near Earlton while the smaller area is composed of seven townships in the north near Matheson. Bisecting these Clay Belts is the Precambrian Shield containing numerous small, poorly drained unproductive waterbodies. The majority of the District's natural coldwater fisheries are found here. The southwestern portion of the District is characterized by deposits of thick glacial till containing, primarily, elongated coolwater lakes and rivers having deep basins and moderate to steeply sloping shores.

Warmwater and coolwater lakes and rivers comprise 83% of the District's total water area. The majority of these waterbodies contain walleye, northern pike, smallmouth bass, yellow perch, common white suckers, lake whitefish or some combination thereof. Lakes average 15.4 ha in area, with Mistinikon being the largest at 1392 ha.

Coldwater lakes and streams comprise 17% of the District's total water area. They include both naturally producing cold water systems and waterbodies either currently being stocked or capable of supporting a cold water fishery. Fish species inhabiting these waterbodies include: lake trout, brook trout, rainbow trout and aurora trout and are collectively referred to as salmonids.

There are two brook trout lakes and numerous streams in the District which are sustained by natural reproduction. An additional 69 waterbodies have been regularly stocked with about 55,000 yearling brook trout. At the present time only minimal reproduction is expected from these waterbodies.

Lake trout inhabit 19 lakes. Populations in eight of these lakes are supplemented by stocking. Artificial fishing opportunities for rainbow trout have been created in five lakes. Aurora trout, a unique stock of the brook trout, are artificially maintained in two lakes. (sanctuaries).

4.2 FISHERIES STATUS: SUPPLY, HARVEST AND PROJECTED DEMAND

It is estimated that approximately 111,800 kg of sport fish species is produced annually in Kirkland Lake District. An estimated 30% of all people residing in the District angle. Combined with tourists who travel to Kirkland Lake District each year, the total fishing effort approaches 147,000 angler days. Fishing is an important recreational activity in the District, with 79% of the anglers being local while 8% are non local residents and 13% are nonresidents of Ontario.

The current estimated harvest of sport fish in the District is 116,000 kg per year which translates to about .80 kg. per angler day. In the case of walleye and salmonids the current harvest is exceeding the amount of fish being produced annually. This is resulting in the brood stock being negatively affected and a future reduction in angler success as overall population levels drop. The annual production is being constrained in several District lakes for a variety of biological reasons and overexploitation. It is estimated that approximately 3000 kg or 2.5 % of the district's annual production is lost because of these constraints.

By the year 2000, fishing pressure is expected to increase by approximately 12% based upon an anticipated similar increase in the district's population. Annual angler days would then rise to 165,000. At current harvest rates, this would result in an annual harvest of about 130,000 kg per year.

Based on these projections of angler harvest and present annual production levels, the district will not be able to meet the demand placed upon the fisheries resource in the year 2000. The projected harvest for walleye and salmonids may exceed the current available supply by 40% and 20% respectively. It is expected angling success will thus decline. A small deficit of northern pike, smallmouth bass and other species may also occur. The values for these latter species should be interpreted with caution as the data base is limited and current harvest estimates may be high. Since the projected harvest exceeds the current resource based opportunities the annual production will become the fisheries management plan target. Management strategies have been developed to make the best use of this limited resource.

The estimated total annual production and current and projected harvest of the major sport fish species are listed in Table 2. Other species include yellow perch, lake whitefish, brown bullheads, lake herring and burbot.

There are about 40,000 kg of small fish, commonly referred to as minnows produced annually, a portion of which is available to the commercial bait fish industry. Although the numbers vary, about 60 bait fish licences are issued annually with a reported harvest approaching 50,000 dozen or 2100 kg.

Table 2. Sport Fish Production and Harvest, Kirkland Lake District

Species Assemblage	Annual Production (kg)	Current Harvest (kg)	Projected Demand (kg)
Walleye	35000	45000	50000
Salmonids (Trout)	5400	5700	6400
Smallmouth Bass	9000	8200	9200
Northern Pike	40000	36500	41000
Other Species	22400	20600	23000

5.0 Problems and Issues

A number of problems and issues which affect the attainment of the fisheries targets currently exist in the Kirkland Lake District. Identified direct and indirect problems and issues are:

- **Overexploitation** or the excessive amount of fish being harvested from some district lakes. For example; there are six documented walleye lakes in the District which are being overstressed to varying degrees by sport fishing. (Gowganda, Long, Howard, Obushkong, Wendigo, Penassi). These lakes represent 24% and 23% of water area and allowable yield respectively of all known waters containing walleye in the District. Similarly, there are three lake trout lakes in the District which are being overstressed by sport fishing (Larder, Watabeag, St. Anthony). These lakes represent 73% of the total area of lake trout waters in the District and 69% of the total allowable yield.

- **Habitat Degradation** resulting in a loss of environmental quality. Operation of hydro electric dams; pollution in the form of mine tailings and municipal/residential sewage effluent; and removal of shoreline vegetation through forest management activities have, in the past all contributed to reduced fish production.

- **Unwanted Species Introductions** resulting in reduced survival of preferred fish. Predation and competition of smelt on walleye; establishment of brown bullheads in a lake trout community; and the presence of yellow perch in stocked brook trout lakes have had a negative impact on local fisheries.

- **User Perceptions** cause conflicts among users of the environment and the fisheries resource. There has been a lack of public awareness that district lakes are being overharvested. A definite preference has developed among district anglers for lake trout, walleye and brook trout. Other species such as smallmouth bass, yellow perch, northern pike, lake whitefish, burbot, brown bullheads and lake herring are not presently being utilized to their potential.

6.0 Preferred management Strategies and Tactics

6.1 INTRODUCTION

Absence of management will see a reduction in the quality of fishing by the year 2000. Addressing the identified problems and issues will permit achievement of the stated objectives by ensuring an adequate quality fishing standard in the target year.

A variety of strategies and tactics exist to address the major problems and issues. The ones selected and described on the following pages reflect the most appropriate mix of good science, dollar cost, public input and practicality. Table 3 summarizes this information and outlines the effect of each tactic on achieving the stated target. Also described is the monetary cost of each tactic.

The strategies identified will be implemented through:

- the preparation, maintenance and annual updating of a five year implementation schedule identifying specific tactics necessary to meet the targets and strategies set out in the management plan;
- annual work plans consisting of specific projects and programs funded and approved through the Ministry's budgeting process;
- projects funded under various special fisheries programs;
- participation in the planning and undertaking of other programs within the Ministry;
- involvement in the review of project or development proposals of other government agencies and the private sector;
- co-operative management efforts with clubs, associations, municipalities and individuals.

6.2 STRATEGIES AND TACTICS

6.2.1 Issue: OVEREXPLOITATION

Strategy • create new angling opportunities for walleye and smallmouth t ass

Tactics
- introduce walleye and smallmouth bass into suitable recipient lakes.
- pursue options for providing public access to Round Lake.
- provide technical assistance and direction in the culturing and stocking of walleye fingerlings for approved Community Fisheries Involvement Projects.

Strategy • create critical fish habitat such as spawning and nursery sites in selected waterbodies

Tactics
- identify suitable sites and construct spawning beds in designated walleye lakes
- identify springs or upwellings and construct spawning beds in designated trout lakes
- provide cover for planted fish in stocked waterbodies

Strategy • increase enforcement effort and effectiveness in areas where overexploitation is a problem

Tactics
- emphasize a "directed enforcement system" through analysis of reported or detected fisheries violations
- create and advertise a hotline for reporting violations (report a poacher program).
- increase the district inventory of specialized enforcement equipment.

Table 3. **Preferred Management Strategies and Tactics**

Problem/Issue	Strategy	Tactic	Relationship To Target	Monetary Cost To M.N.R.
Overexploitation	• create new angling opportunities for walleye and smallmouth bass	• introduce walleye	increase production, distribution and angling opportunities for walleye and smallmouth bass	moderate
		• introduce smallmouth bass		moderate
		• Round Lake access development proposal		none
		• technical assistance for walleye culture projects		none
	• create critical fish habitat	• construct spawning beds in walleye lakes	increase production of walleye and trout	low-high
		• identify springs and construct spawning beds in trout lakes		low-high
		• provide cover		low-high
	• increased enforcement effort/effectiveness in problem areas	• emphasize "directed enforcement"	increase production of all species through reduction of illegal harvests	none
		• encourage "report a poacher program"		low
		• increase inventory of specialized equipment		high
	• undertake creel surveys/assessment studies	• assess success of new introductions	document underproducing waterbodies and recommend remedial action to increase production	high
		• conduct a creel census on overharvested lakes		high
		• assess potential lakes for new introductions		high
		• increase data base through stream inventories		high
	• implement regulations to control harvest	• close native lake trout lakes to angling - Sept. 30 - Feb. 15	increase production of walleye and lake trout	low
		• implement "slot limits" on designated walleye lakes		low
		• close areas where walleye congregate; until June 15		low
	• increase efficiency/effectiveness of bait fish industry	• increase audits	increase harvest of bait fish	low
		• conduct bait fish seminars		moderate
		• encourage year round operations		none
Habitat Degradation	• liaison with water control agencies	• inventory water control structures	increase production of all sport fish species	moderate
		• develop water level proposals		low
	• monitor resource extraction activities	• implement habitat management guidelines	maintain current production of sport fish	none
		• additional training in identification of habitat degradation		moderate

Table 3 Cont'd.

Problem/Issue	Strategy	Tactic	Relationship To Target	Monetary Cost To M.N.R.
	• rehabilitate degraded habitat	• remove debris etc. to allow access to spawning sites	increase production of walleye and trout	very high
		• clean silt etc. from spawning shoals		very high
Species Introductions	• reduce the presence of unwanted species	• restrict live bait in selected stocked lakes	increase production of trout	low
		• publish brochure		low
		• erect signs at access points		moderate
		• eradicate undesirable fish species		very high
User Perceptions	• increase return of hatchery fish	• identify unproducing lakes	increase production and survival of stocked trout	high
		• stock lakes where natural reproduction may occur		low
		• increase stocking rates on the best brook trout lakes		low
		• stock trout fry/fingerlings in suitable waterbodies		low
		• expand supplemental stocking of lake trout		moderate
		• maintain rainbow trout in selected lakes		low
		• maintain stocking rotation on lakes with limited fishing		low
		• establish FI splake in selected lakes		low
		• limit aurora trout production to four lakes		low
	• promotion of underutilized species	• fishery seminar	decrease harvest of walleye and trout; increase harvest of underutilized species	moderate
		• promote recipe booklet		low
	• increase public awareness	• promote Community Fisheries Involvement Program	increase production of sport fish	low
		• maintain education program		low
		• promote "live release" for fish derbies		low
	• maintain district fisheries advisory committee		increase production of sport fish	low

Strategy • undertake periodic creel surveys and assessment studies on designated waterbodies

Tactics
- assess the success of new introductions of walleye, smallmouth bass, splake, aurora trout and lake trout.
- conduct creel censuses on waterbodies suspected of being overharvested.
- assess potential lakes for new introductions of either hatchery or wild fish.
- increase the district data base by conducting inventories on selected watercourses.

Strategy • implement new regulations to control harvest

Tactics
- close native lake trout lakes to all angling between September 30 and February 15. Lakes would have "sanctuary status" during that time.
- implement "slot limits" to protect the breeding fish on walleye lakes identified as being seriously overharvested or have had walleye recently introduced.
- identify areas where large congregations of walleye are vulnerable to angling during the post spawning period. Assess the effectiveness of implementing an extended spring closure to angling (June 15) at these sites.

Strategy • increase the efficiency and effectiveness of the district bait fish industry

Tactics
- increase reviews of bait fish harvesters and dealers operations.
- conduct a seminar for bait fishermen, stressing new aquaculture techniques to reduce handling and storage mortality.
- encourage year round operations.

6.2.2 Issue: HABITAT DEGRADATION

Strategy • liaison with water control agencies and input dam construction or removal proposals

Tactics
- develop an updated catalogue of all water control structures in the district.
- develop water level proposals for important fisheries affected by water control structures for discussion with controlling agencies.

Strategy • monitor resource extraction activities and ensure adequate input into resource development plans

Tactics
- ensure implementation of habitat management guidelines.
- provide additional training to conservation officers and other staff to enable them to better identify sites where habitat degradation is occurring.

Strategy • rehabilitate degraded critical habitat on selected waterbodies

Tactics
- remove debris, old beaver dams and log jams from selected watercourses to allow access to spawning sites.
- clean silt, mine tailings and other materials from spawning shoals in selected waterbodies.

6.2.3 Issue: SPECIES INTRODUCTIONS

Strategy • reduce the presence of unwanted species in district lakes

Tactics
- restrict the use of live bait in selected stocked brook trout, rainbow trout and aurora trout lakes.
- publish a brochure communicating the effects of minnows, yellow perch and other small fish on stocked trout
- erect signs at selected lakes warning anglers not to dump live bait at the conclusion of fishing
- eradicate undesirable fish species from selected stocked lakes through chemical treatment.

6.2.4 Issue: USER PERCEPTIONS

Strategy • develop and maintain an active District Fisheries Advisory Committee

Strategy • increase the return of hatchery fish to the angler through innovative management techniques

Tactics
- identify waterbodies experiencing elevated levels of stocked fish mortality not related to angling and either discontinue stocking, change species, or reclaim.
- redirect stocking efforts on waterbodies where natural reproduction and good survival may be expected.
- stock brook trout fry or fall fingerlings in waterbodies where adequate survival can be expected and measured.
- expand supplemental stocking of lake trout to additional native lake trout on a trial basis.
- maintain a rainbow trout fishery in selected lakes.
- maintain an appropriate stocking rotation for selected brook lakes commensurate with fishing pressure.
- establish F1 splake fisheries in selected trout lakes which are not producing to optimum levels.
- maintain aurora trout production at current levels; three sanctuary lakes and one lake open to angling in 1988.

Strategy • promote angling and increased awareness for alternative, underutilized species

Tactics
- conduct fisheries seminars concentrating on alternative species, including the serving of alternative fish dishes.
- obtain and promote a recipe booklet for alternative species, perhaps in conjunction with a local Fish and Game Club.

Strategy • increase public awareness

Tactics
- promote the Community Fisheries Involvement Program.
- participate in school programs and lecture to groups or associations when called upon.
- promote "live release" philosophy for all district fishing derbies.

7.0 Five Year Implementation Schedule

The previous section identified and outlined the preferred management strategies and specific tactics developed through public input. The actual waterbodies where these tactics will be carried out during the period 1986 - 1991 have been identified and are described in Table 4 and Figure 2 in the inside back cover. The number of projects completed will be dependent upon funding levels.

Implementation schedules for the next five years are presented in Tables 5 and 6. Some tactics can be undertaken with present levels of funding and staff and will be carried out on an annual basis as required to maximize effectiveness (Table 5). Other tactics which have been prioritized will require increased levels of funding and/or staff (Table 6). Routine, ongoing fisheries activities such as administration, public relations and the normal enforcement program have not been included.

Annual fisheries work program plans will be developed based on scheduling and priorities identified in the implementation schedule.

Table 4. Waterbodies Identified for Selected Fisheries Management Tactics 1986-1991

Tactic	Waterbody	Township
• introduce walleye	Davis	McEvay/Tolstoi
	Elk Horn	Milner
	Hubert	Farr
	Margaret	Skead/Bayly
	Wildgoose	McCann
• introduce smallmouth bass	Watabeag Lake area - one lake	Nordica
	Hough	Marquis
	Matheson area - three lakes	
	No. 19	Mickle
• identify stocked lakes with high mortality	assess all stocked brook and rainbow trout lakes	
• culturing/stocking walleye fry/fingerlings	Wendigo	Bayly
	Lost	Haultain
	Longpoint	Chown
	Gowganda	Nicol/Milner
	Wigwam	Haultain
• expand supplemental stocking of lake trout	Crystal	Lebel
	St. Anthony	Skead
	Nettie	Morrisette
	Mousseau	Gauthier
• maintain rainbow trout fisheries	Gaf	Clifford
	Nettie	Morrisette
	Flatstone	Haultain
	No. 27	Yarrow
• establish splake in underproducing trout lakes	Blueberry	Munro
	Francourt	Baden
	Roach	Clifford
	Silverclaim	Mickle
• maintain aurora trout production	Alexander	McEvay
	Pallet	Nordica
	Wynn	Arnold
	Strong	Powell

Table 4. Cont'd.

Tactic	Waterbody	Township
• construct spawning beds and provide escape cover	Blanche River	Teck
	Howard	Arnold/McVittie
	additional lakes identified pending assessment	
• promote "live release" fish derbies	Howard	Arnold
	Larder	Hearst/McFadden
	Mistinikon	Yarrow/Powell
	Round	Otto
• assess success of new introductions	selected splake lakes	
	selected aurora trout lakes	
	selected walleye lakes	
	selected smallmouth bass lakes	
	selected lake trout lakes	
• creel surveys	Larder	Hearst/McFadden
	Obushkong	Van Hise
	Wendigo	Bayly
	Gowganda	Nicol/Milner
• assess waterbodies for new introductions or species conversion	splake -Clear	Bayly
	Lawgraves	Morrisette
	Beaver	Dunmore
	Lallan	Clifford
	Stock	McCann
	rainbow trout -Mousseau	Gauthier
	Fraser	Willison
	No. 8	Charters
	Lallan	Clifford
	brook trout -Aidie Creek	Chamberlain
	Little Otterskin	Hilliard
	Spring	Skead
	Gerry	Powell
	Canyon	Yarrow
	Mousseau	Gauthier
	No. 28	Kimberly
	Nugold	Kimberly
	Leta	Lawson
	Turtle	McCann
	walleye -Fallduck	Terry
	Centennial	Bannockburn
	Verona	Lee

Table 4 Cont'd.

Tactic	Waterbody	Township
• inventory selected streams	Bear	Lawson
	Calcite	Shillington
	Dokis	Dokis
	Garrison	Rand
	Mattawasaga	Stoughton
	Night Hawk	Langmuir
	Pontiac	Pontiac
	Sunrise	Pontiac
	Whiskeyjack	Kimberly
	Coldspring	Lawson
	Lawson	Lawson
	Burgers	Mickle
	Cucumber	Willet
• assess sites for spring concentrations of walleye	Blanche River	
	Skeleton Creek	

Table 5. Five Year Implementation Schedule for Tactics Requiring No Increases in Funding or Staff

Tactic	Completion Date	Effect on Fisheries Target
• Round Lake access proposal	Year 1	• increase harvest of walleye by 500 kg per yr.
• introduce aurora trout into two lakes	Year 1	• 8000 yearling fish • increase harvest of trout by 300 kg per yr.
• introduce splake into four lakes	Year 2	• 11000 yearling fish stocked • increase harvest of trout by 500 kg per yr.
• establish "report a poacher" program	year 2	
• close native lake trout lakes to angling, Sept. 30 - Feb. 15	year 2	• increase legal harvest of trout by 200 kg per yr.
• assess sites of spring walleye concentrations	year 2	
• additional training in identification of habitat degradation	year 2	
• publish recipe book	year 3	
• inventory water control structures	year 3	
• stock lake trout into four additional lakes	year 3	• 6000 fish stocked • increase harvest of trout by 1000 kg per yr.
• develop water level proposals	year 4	
• publish brochure on effect of unwanted species	year 4	
• implement "slot limits" on selected lakes	year 5	
• restrict live bait in selected lakes	year 5	
• implement habitat management guidelines	ongoing	
• promote live release fishing derbies	ongoing	
• emphasize "directed enforcement"	ongoing	
• technical assistance for C.F.I.P. projects	ongoing	• max. of 5,000,000 walleye fry and 500,000 fingerlings stocked into five lakes • increase harvest by 1000 kg per yr.
• stock brook, rainbow and lake trout as per revised fish stocking strategy	ongoing	• 57000 brook trout; 17000 lake trout, 8000 rainbow trout stocked into 80 lakes • increase current harvest of trout through better survival of stocked fish
• increase bait fish reviews	ongoing	

Table 5. Cont'd.

Tactic	Completion Date	Effect on Fisheries Target
• encourage year round bait fish operations	ongoing	
• Maintain District Fisheries Advisory Committee	ongoing	
• promote Community Fisheries Involvement Program	ongoing	
• maintain educational program	ongoing	

1. refer to Table 4 for identification of waterbodies
2. effect on target cannot always be quantitatively expressed. In those instances please refer to Table 3.

Table 6. Prioritized Five Year Implementation Schedule for Tactics Requiring Increases in Funding and Staff

Tactic	Completion Date	Effect on Fisheries Target
• conduct a fishery seminar	year 1	
• complete assessments on 80 stocked lakes	year 4	
• introduce walleye into five lakes	year 3	increase harvest of walleye by 1700 kg per yr.
• introduce smallmouth bass into six lakes	year 3	increase harvest of smallmouth bass by 600 kg per yr.
• conduct bait fish seminar	year 4	
• clean silt from spawning shoals in four lakes	year 4	
• erect signs warning about dumping live bait at selected lakes	year 4	
• construct spawning beds and escape cover in 15 lakes	year 5	
• remove debris from five watercourses	year 5	
• increase inventory of enforcement equipment	year 5	
• assess introductions in two walleye, smallmouth bass, aurora trout, lake trout and splake lakes	year 5	
• creel census in four lakes	year 5	
• assess selected lakes for potential splake, rainbow trout, brook trout and walleye introductions	year 5	
• conduct inventories on 14 streams	year 5	
• eradicate undesirable fish species by chemical treatment in four lakes	year 5	

1. refer to Table 4 for identification of waterbodies
2. effect on target cannot always be quantitatively expressed. In those instances please refer to Table 5.

Appendix I: Analysis of Public Comments

Public Consultation

The Ministry of Natural Resources has been committed to involving the public in the preparation of the Fisheries Management Plan for Kirkland Lake District. The initial phase of public consultation has ended with publication of "The Background Information and Optional Management Strategies Summary" and subsequent public review of this document. An analysis of the input received from this process is provided. The next phase of public review will be the draft fisheries management plan itself.

Questionnaire Analysis and Summary of Public Response

General

• Number of Summary Documents Distributed:	English:	252
	French:	2
• Open House Attendance (January 30, 1986; Kirkland Lake):		75
• Number of Questionnaires/Comment Sheets Returned:		59

Respondents Affiliation (Question No. 1):

Angler	Tourist Outfitter	Bait Fishermen	Other
70%	16%	5%	9%

Other Affiliations:
- Ministry of Tourism and Recreation
- Treasure North Tourist Association
- Ontario Federation of Anglers and Hunters
- Federation of Ontario Naturalists
- Kirkland Lake Tourist Committee
- Kirkland Lake Game and Fish Protective Association

Problems/Issues (Question No. 2): "In order of priority rank the following problems as you see them affecting the fishery resource in Kirkland Lake District":

	Problem			
	Habitat Degradation	Overfishing	User Perceptions	Species Introductions
% of Respondents Ranking Problem as No. 1 Priority	38%	35%	15%	12%
Priority by average rank	1	2	3	4

Strategies (Question 3a): "In order of priority which of the following management strategies should the M.N.R. concentrate their efforts on?"

	Strategy			
	Introductions of Walleye and Smallmouth Bass	Increased Enforcement	Promotion of Other Species	Intro. of New Regulations
% of Respondents Ranking Strategy as No. 1 priority	35%	33%	20%	12%
Priority by average rank	2	1	3	4

Fish Stocking (Question 3b): "In order of priority which of the following fish stocking strategies should the M.N.R. concentrate their efforts on?

	Establish Self Supporting Populations	Introduce Walleye And Small-mouth Bass	Stock For "Put Grow and Take"	Stock Aurora Trout	Stock Splake
% of Respondents Ranking Strategy as No. 1 Priority	59%	30%	9%	2%	0%
Priority by average rank	1	2	3	5	4

Besides the questionnaires, a number of comment sheets and briefs were submitted. A summary of these submissions as related to the various general strategies are as follows:

Strategy: Stocking

- use Hill's Lake Fish Culture Station to its production capacity (7 briefs)
- stock more fish in local lakes (7 briefs)
- don't send fish down south (7 briefs)
- lakes suspected of not producing; resurvey and if necessary take off stocking list (one brief)
- too much emphasis on trout - concentrate on walleye and smallmouth bass, especially in the Watabeag Lake area (7 briefs)
- introduce salmon and muskellunge (one brief)
- stock more rainbow trout, concentrating on lakes with good access (2 briefs)
- lakes with good access should be stocked every year, not on a 2 or 3 year rotation (3 briefs)
- stock some lakes with more than one species - splake or lake trout along with rainbow trout or brook trout (one brief)
- eliminate all rainbow trout, aurora trout and splake stocking - concentrate on lake trout and brook trout (two briefs)

- fish are stocked with no follow up assessment or survival estimates (one brief)
- stocking should be done in the fall to avoid loon predation and angling prior to dispersal (one brief)
- continue with the present aurora trout stocking program (one brief)
- use more volunteer help to improve streams and stock fish (5 briefs)
- undertake supplemental stocking of lake trout in St. Anthony (one brief)

Strategy: Increased Enforcement

- better control of acid rain (two briefs)
- prohibit timber/mining companies from cutting shorelines and leaving garbage (7 briefs)
- prohibit Forest Management, Ontario Hydro, Pipeline and Railway companies from indiscriminate spraying which may be having a negative effect on aquatic environments (one brief)
- hire more Conservation Officers (5 briefs)
- disclose offender's names (one brief)
- control fluctuating water levels during spawning periods; Examples - Mistinikon and Long Lakes (3 briefs)
- stricter enforcement is not the answer; a better public relations campaign would yield more constructive results (one brief)

Strategy: Promotion of Underutilized Species

- encourage fishing for fun - live release (7 briefs)
- promote other species by supplying recipes and serving dishes at public meetings (one brief)
- improve public access to District lakes; Example - Round - Kenogami - Sesekinika Lakes (4 briefs)

Strategy: Introduction of New Regulations

- restrict technological devices such as sonars, ice huts and live bait (one brief)
- ban the use of ice huts on Larder Lake from January 1 to February 15 each year (one brief)
- have an aggregate limit of 10 fish for northern pike, walleye and smallmouth bass rather than the present 18 (one brief)
- reduce creel limits to lower harvest (2 briefs)
- prohibit the use of live bait, especially on lakes that have been reclaimed (one brief)
- restrict crown land occupation (camping) at access points (one brief)
- implement a season for smallmouth bass - too many gravid females are now being caught in June (one brief)

- legislate against fish derbies (4 briefs)
- introduce size limits for non residents only (4 briefs)
- have a six week winter lake trout season to include the March school break - family fishing (one brief)
- resident fishing licence is a good idea only if the funds were allocated to help the fishery (3 briefs)
- against the concept of a resident fishing licence (5 briefs)
- close Larder Lake to all fishing from Sept. 30 to February 15 each year (7 briefs)
- O.F.A.H. brief against the above strategy
- several briefs suggested closing **all** native lake trout lakes to fishing between Sept. 30 and February 15.
- protect walleye in the Blanche River (upstream from Round Lake) and Skeleton Creek to June 15 each year (3 briefs)

General Comments

- background summary should have mentioned specific clubs/organizations/individuals who have assisted the M.N.R. over the years.
- background summary not detailed enough - too much information missing.
- question accuracy of data
- about time M.N.R. went to the public concerning fisheries - let's hope they had their "ear plugs" out
- this open house should have also been held in the smaller communities in the District.

Resource Information

During the Open House a number of wall maps displayed known district resource information. Individuals were encouraged to comment on the information displayed, adding or deleting waterbodies accordingly. As a result:

- 8 new walleye lakes were identified
- 1 new brook trout lake was identified
- 13 new smallmouth bass lakes were identified
- 6 new lake trout lakes were identified

We also asked for comments on our stocking plan and as a result:

- 11 new waterbodies were suggested for brook trout stocking
- 6 new waterbodies were suggested for rainbow trout stocking
- 2 new waterbodies were suggested for lake trout stocking
- 8 new waterbodies were suggested for splake stocking
- 12 new waterbodies were suggested for walleye stocking

All these waterbodies will receive careful consideration and will be fully assessed as to their suitability prior to being incorporated into our stocking plan.

Conclusions

- there is considerable interest in fisheries management in the district
- habitat degradation and overfishing are clearly seen as the major problems or issues with user perceptions and introductions of unwanted species as minor problems
- stocking is a high priority and stocking needs to focus on self reproducing populations with a decreased emphasis on "put, grow and take".
- expansion of walleye waters are a high priority whereas splake and aurora trout are not.
- increased enforcement and stocking efforts, particularly walleye are perceived to be the keys to increasing fish in Kirkland Lake District.

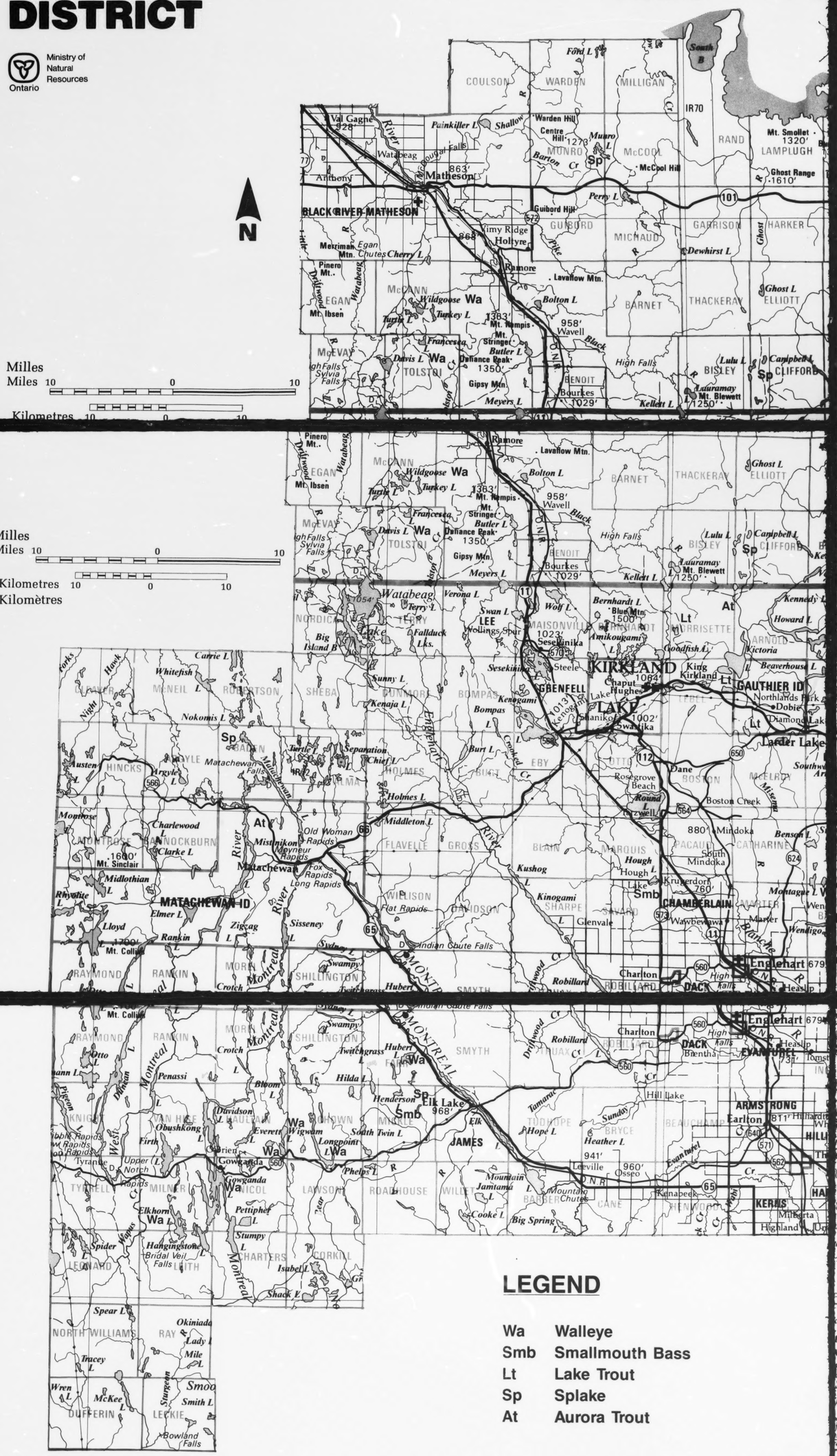
DISTRICT DE KIRKLAND LAKE DISTRICT

Ministry of Natural Resources
Ontario

NEW FISH INTROD 1986 - 199

DE D LAKE

NEW FISH INTRODUCTIONS 1986 - 1991



LEGEND

Wa	Walleye
Smb	Smallmouth Bass
Lt	Lake Trout
Sp	Splake
At	Aurora Trout

LEGEND

Wa	Walleye
Smb	Smallmouth Bass
Lt	Lake Trout
Sp	Splake
At	Aurora Trout